

### **REMARKS**

Applicants acknowledge receipt of an Office Action dated March 28, 2002. In this response Applicants have amended the abstract to correct for a minor informality. In addition, Applicants have cancelled claims 1-12 and have added new claims 13-41. No new matter has been added. Following entry of these amendments, claims 13-41 are pending in the application.

Reconsideration of the present application is respectfully requested in view of the foregoing amendments and the remarks which follow.

#### **Specification**

In the Office Action, the PTO has objected to the abstract of the disclosure for a minor informality. Applicants have amended the disclosure as suggested by the PTO.

#### **Claim Objections**

In addition the PTO has objected to claims 1, 4 and 11 for minor informalities. Although these objections are now moot, Applicants note that the terms "a:b" and "1:2" have been used throughout newly added claims 13-41 instead of "a):b)" and "1.2".

#### **Rejections Under 35 U.S.C. §112, 2<sup>nd</sup> Paragraph**

On page 2 of the Office Action, the PTO has rejected claims 1-12 under 35 U.S.C. §112, 2<sup>nd</sup> paragraph, as allegedly being indefinite. In view of Applicants' cancellation of claims 1-12 above, these rejections are now moot.

In this response, Applicants have added new claims 13-41. These claims have been drafted (1) to eliminate multiple dependency, (2) to eliminate the recitation of multiple ranges within a single claim, (3) to eliminate the terms "preferably" and "particularly" and (4) to provide sufficient antecedent basis for the terms in the claims. Applicants submit that new claims 13-41 are clear and definite within the meaning of 35 U.S.C. §112, 2<sup>nd</sup> paragraph and, further, that these changes do not narrow the scope of the claims as compared to original claims 1-12.

With regard to the PTO's objection to previous claim 10 (which is analogous to newly added claim 40), Applicants note that the phrases "internal preparation" and

“external preparation” are discussed in the specification at, for example, the paragraph bridging pages 6 and 7.

### **Rejections Under 35 U.S.C. §102**

On page 5 of the Office Action, the PTO has rejected claims 1, 2, 4-7 and 9-12 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 5,928,737 to Hammer *et al.* (hereafter “Hammer”). Although Applicants traverse these rejections, the rejections are moot in view of the cancellation of claims 1-12. As set forth below, Applicants traverse these rejections to the extent that the PTO may attempt to apply these rejections to any of claims 13-41.

In order to anticipate a claim, a reference must teach each and every element of the claims. See MPEP §2131.

Newly added independent claim 13 recites, “[a] seamless, tubular food...produced from a thermoplastic mixture which comprises...at least one other polymer selected from the group consisting of a **homo- or copolymer comprising hydroxycarboxylic acid units, a polyesterurethane, a polyetherurethane, a polyesteretherurethane and a polyalkylene carbonate of the formula  $-\text{CHR}^1\text{-CHR}^2\text{-O-CO-O-}$ ]<sub>n</sub>, where R<sup>1</sup> and R<sup>2</sup> independently of one another are a hydrogen atom or a (C<sub>1</sub>-C<sub>4</sub>) alkyl radical and n is an integer from 10 to 5000...**”.

Since Hammer fails to teach or fairly suggest a **homo- or copolymer comprising hydroxycarboxylic acid units, a polyesterurethane, a polyetherurethane, a polyesteretherurethane and a polyalkylene carbonate of the formula  $-\text{CHR}^1\text{-CHR}^2\text{-O-CO-O-}$ ]<sub>n</sub>, where R<sup>1</sup> and R<sup>2</sup> independently of one another are a hydrogen atom or a (C<sub>1</sub>-C<sub>4</sub>) alkyl radical and n is an integer from 10 to 5000** as set forth in claim 13, Hammer cannot anticipate claim 13 or any of the claims depending therefrom within the meaning of §102.

### **Rejections Under 35 U.S.C. §103**

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Hammer in view of U.S. Patent 6,221,410 to Ramesh *et al.* (hereafter “Ramesh”) and claim 8 stands rejected under §103 as being unpatentable over Hammer in view of Andrae

*et al.* (hereafter “Andrae”). Although Applicants traverse these rejections, the rejections are moot in view of the cancellation of claims 1-12. As set forth below, Applicants traverse these rejections to the extent that the PTO may attempt to apply these rejections to any of claims 13-41.

As discussed above, newly added independent claim 13 recites, “[a] seamless, tubular food...produced from a thermoplastic mixture which comprises...at least one other polymer selected from the group consisting of a **homo- or copolymer comprising hydroxycarboxylic acid units, a polyesterurethane, a polyetherurethane, a polyesteretherurethane and a polyalkylene carbonate of the formula  $[-CHR^1-CHR^2-O-CO-O-]_n$ , where  $R^1$  and  $R^2$  independently of one another are a hydrogen atom or a  $(C_1-C_4)$  alkyl radical and  $n$  is an integer from 10 to 5000...**”, and this element is nowhere taught or fairly suggested by Hammer.

Ramesh fails to teach or fairly suggest this element of independent claim 13. On page 8 of the Office Action, the PTO states that “Ramesh *et al.* teaches that it is known in the art to have a polymer being of a homopolymer or copolymer containing hydroxycarboxylic acid units...” citing col. 12, lines 58-68 of Ramesh. There is, however, no such disclosure in the cited passage of Ramesh. This passage only discloses unsaturated carboxylic acids, such as maleic acid and fumaric acid which may be incorporated in an olefin homo- or copolymer. These are not the same as hydroxy carboxylic acids. Unsaturated carboxylic acids as contemplated in the reference can be addition polymerized (due to the presence of the carbon-carbon double bond) and thus can become part of an olefin copolymer, whereas hydroxycarboxylic acids cannot. As Ramesh fails to resolve the deficiencies of Hammer, neither of these references, taken either alone or in fair combination, teach or fairly suggest the embodiments of the present invention set forth in claims 13-41 and, therefore cannot properly render these claims obvious within the meaning of §103.

On page 9 of the Office Action, the PTO combined Hammer with Andrae. Hammer is deficient for the reasons set forth above, and Andrae cannot resolve this deficiency. Andrae teaches a tubular food casing comprising a web of material comprising a naturally

occurring polymer curved along its longitudinal axis such that the edge regions are overlapping, a layer of a substantially water-insoluble adhesion-promoting resin covering the inside and/or outside of the web at least in the area of the edge regions, a strip of film applied to the longitudinal edge regions, and layer of a pressure-sensitive adhesive interposed between the strip of film and the edge regions of the web material (col. 3, lines 43-63). It is the layer of the pressure sensitive adhesive which optionally comprises a filler such as kaolin, glass beads, etc. (col. 13, lines 40-44). In a seamless casing, as in claim 13, there is no need for a pressure sensitive adhesive. Thus the combination of the references proposed in the Office Action would be improper, since a person having ordinary skill in the art would not have been motivated to incorporate a pressure sensitive adhesive with fillers into a seamless tube casing. As such, a rejection based Hammer and Andrae, taken either alone or in fair combination would be improper within the meaning of §103.

### CONCLUSION

In view of the foregoing amendments and remarks, applicants respectfully submit that all of the pending claims are now in condition for allowance. An early notice to this effect is earnestly solicited. If there are any questions regarding the application, the Examiner is invited to contact the undersigned at the number below.

Respectfully submitted,

Date June 28, 2002

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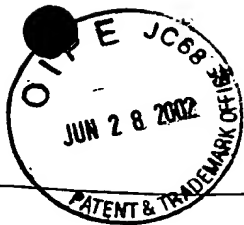
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**Versions with Markings to Show Changes Made**

**In the Abstract:**

The invention relates to a seamless tubular food casing. Said casing is shaped by blowing with a surface area ratio of 1:2 to 1:10 and is produced from a thermoplastic mixture comprising a) thermoplastic starch and/or thermoplastic starch derivative and b) at least one other polymer obtained by polycondensation or polyaddition, the weight ratio **[a):b)]** **a:b** being 90:10 to 10:90. The thermoplastic mixture may also contain plasticiser, lubricants, fibres, fillers and/or crosslinking agents. The inventive casing is especially for use as a plastic sausage casing.



## ABSTRACT

B2 The invention relates to a seamless tubular food casing. Said casing is shaped by blowing with a surface area ratio of 1:2 to 1:10 and is produced from a thermoplastic mixture comprising a) thermoplastic starch and/or thermoplastic starch derivative and b) at least one other polymer obtained by polycondensation or polyaddition, the weight ratio a:b being 90:10 to 10:90. The thermoplastic mixture may also contain plasticiser, lubricants, fibres, fillers and/or crosslinking agents. The inventive casing is especially for use as a plastic sausage casing.